Arboretum notes

Research Grants

LAST JANUARY 31, Dr. Paul Cheo, chief of the Arboretum Research Division, received the good news from the National Science Foundation that his application for a research grant had been approved. We dropped by to see him in his combined office-lab in the Administration Building shortly thereafter to offer our congratulations and to learn more about the grant itself and how he went about getting it.

Having read somewhere that getting a research grant today is a specialized and complicated business, we wanted to know first what steps he had taken, how much time was involved, and how much money he received.

"We were fortunate," explained Paul. "We made our request last May and it was granted seven months later. But it took a lot of paper. First we wrote up our proposal. That was thirty pages. Then we made twenty copies. These were for the NSF reviewers who have to make their recommendation — should our proposal be supported or not. If they okay it, then it has to be determined if the money is available. Anyway, we got our grant which came to $23,600. Actually, as you know, the application is handled by our California Arboretum Foundation which also administers the grant."

Dr. Paul Cheo, research chief

The money, we learned, is to pay for the services of one lab assistant for two years — John Gerard, a young biologist from Los Angeles State College — and some new equipment, mainly a freeze-dryer, a device that through evaporation, low temperatures and a vacuum, concentrates biological substances and makes them stable enough for study.

We asked Paul to explain the essence of his proposal to the NSF. "Tobacco mosaic virus," he said, "is commonly used for studying the nature of virus because it is stable and easy to obtain in purified form. Putting this fact aside for the moment, there were many reports that some plants are not susceptible to virus infection. When I was at Washington State University I was studying the reaction of different host plants to virus infection. I found that tobacco mosaic has a wide host range. From this and from subsequent study, I found that though some plants might appear to be not susceptible to virus, they in fact were typical 'Typhoid Mary's,' that is, symptomless carriers. The objective of our grant is to study this highly resistant group of plants to find out why they are resistant. There is evidence that shows that these plants have the ability to produce anti-viral substances after infection, or as a reaction to infection. The final aim of the grant is to isolate and study this anti-viral substance. Inevitably, both the substance and the study will contribute to the overall knowledge of virus and in this way perhaps contribute to the cure of human ailments caused by viral infection — the flu, for example."

Dr. H. Hamilton Williams, turfgrass specialist

A GRANT bearing another objective was received by our turfgrass specialist, Dr. H. Hamilton Williams, last month. It came from the California Fertilizer Association, a powerful group of industrialists who work closely with educational institutions to mutual advantage. The amount, $3,000, is an initial gesture on the part of the CFA, working through its Soil Improvement Committee, to indicate that although it is an association mainly oriented toward the farm, it recognizes the economic as well as esthetic importance of urban agriculture, meaning, essentially, ornamental horticulture.

The money will be used to equip our new Research Laboratory with the means to permit more sophisticated analysis and diagnosis of turfgrass problems associated with the home gardener.

The equipment will be selected by a committee headed by Dr. George W. Schmitz, Department of Soils, California State Polytechnic College. Dr. Schmitz, together with other educators and industry representatives, will work with Dr. Williams in writing the program that will further these aims.

Serendipity in an Herb Garden

THE ARBORETUM is an institution of many parts, including a not very stringent set of rules and regulations governing such matters as picking flowers (forbidden), picnicking (only in specified area outside grounds), playing radios, guitars and other sound makers (not permitted), and driving cars on the grounds (with special permission only).

Because Arboretum roads are shared by trams, pedestrians, peacocks, ducks and an occasional turtle, the use of private vehicles as well as suitable parking space — not on lawn borders because this compacts the earth — is necessarily limited.

It was in this connection that we drove down (in our one-cylinder Cushman) to the Herb Garden the other day. We were greeted by Dr. Glenn Walker, whose official title is Second Vice-President of the Southern California Unit of the Herb Society of America. A friendly man with a disarming manner, the reason for our visit was quickly disposed of and was followed by an exchange of comments on the status of the garden, the effects of recent heavy rains, and finally our casual observation that the Italian parsley we remembered adding as a gustatory fillip to an earthy dish based on Long Island cherrystone clams, seemed not to be available anywhere along the California coast.

Dr. Walker's response was to take us a short distance to a bed of what was unmistakably parsley. "Do you mean this?" he asked. We bent down and read the identifying legend: Italian Parsley, Taylor's Herb Garden. We felt an odyssey had come to an end with *Petroselinum v. sativum*.

Our interest whetted, we followed Dr. Walker around as he commented on the garden. The kitchen bed is in good condition, the bee section in poor condition,